Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A medical lead for electrical stimulation of a spinal cord, the medical lead comprising:

a generally flat paddle, the paddle including first and second major surfaces, a proximal end and a distal end, the proximal end being joined to a distal end of a body of the lead, and the paddle defining an imaginary longitudinal center line;

an electrode array comprising a plurality of electrodes, each electrode of the array being located on the longitudinal center line defined by the paddle, and being exposed through the first major surface and insulated by the second major surface, thereby having directional electrical field properties relative to the first and second major surfaces of the paddle, the electrode array being displaced longitudinally from the proximal end of the paddle such that a portion of the paddle that is free of electrodes extends proximally from the electrode array to the proximal end of the paddle, over a length that is sufficient to allow the portion that is free of electrodes to extend through connective tissue so that the proximal end of the paddle is positioned outside an epidural space when the entire electrode array is positioned within the epidural space alongside the spinal cord, the length being [[of]] at least 40 mm; and

an orientation marker being displaced from the longitudinal center line, on one side thereof, [[and]] from every electrode of the electrode array, and longitudinally from the portion of the paddle that is free of electrodes, such that the orientation marker is positioned in the epidural space, with the entire electrode array, when the proximal end of the paddle is positioned outside the epidural space, the orientation marker including radio-opaque material such that, when the orientation marker is viewed under fluoroscopy, as being on a particular side of the longitudinal center line, the direction in which the first major surface of the paddle faces can be determined in order to know if the first major surface of the paddle, through which each electrode of the electrode array is exposed, faces toward the spinal cord for stimulation thereof, via the electrode array.

2. Cancelled

3. (Previously Presented) The medical lead of claim 1, wherein each electrode of the electrode array is recessed relative to the first major surface.

4. (Original) The medical lead of claim 1 wherein the orientation marker is coded to identify the model or serial number of the lead.

5. Cancelled

6. (Previously Presented) The medical lead of claim 1 wherein the radio-opaque material comprises platinum.

7. – 8. (Cancelled)

9. (Previously Presented) The medical lead of claim 1, wherein at least the portion of the paddle is formed of substantially transparent polyurethane material.

10. – 29 Cancelled

30. (Withdrawn) A method for implanting a medical lead for electrical stimulation of the spinal cord, the method comprising:

introducing, via a percutaneous introducer needle, a distal end of a paddle of the medical lead through a ligamentum flavum and into an epidural space alongside a spinal cord, the paddle being generally flat and defining an imaginary longitudinal center line;

positioning an electrode array of the paddle within the epidural space while leaving a proximal end of the paddle extending out from the ligamentum flavum, outside the epidural space, the electrode array being located on the longitudinally extending center line defined by the paddle and being displaced from the proximal end of the paddle;

fluoroscopically viewing the electrode array and an orientation marker of the paddle, after introducing the distal end of the paddle into the epidural space, the marker being displaced from the imaginary longitudinal center line, on one side thereof, and from the electrode array; and

confirming that a first major surface of the paddle faces toward the spinal cord, based on a location of the fluoroscopically viewed marker, with respect to the fluoroscopically viewed electrode array, wherein each electrode of the electrode array of the lead is exposed through the first major surface and is insulated by a second major surface of the paddle, the second major surface being opposite the first major surface.

31. (Withdrawn) The method of claim 30, further comprising anchoring the proximal end of the paddle to the ligamentum flavum.

32. (Withdrawn) The method of claim 31, wherein anchoring the proximal end of the paddle comprises suturing an anchor to the ligamentum flavum and mating arms of the anchor, in order to clamp against the first and second major surfaces of the paddle, thereby engaging and retaining the proximal end of the paddle.

33. (Withdrawn) The method of claim 30, wherein the orientation marker is coded to identify the model or serial number of the medical lead, and further comprising determining the model or serial number of the lead based on the step of fluoroscopically viewing the orientation marker of the implanted lead.